MIAMIBEACH

OFFICE OF THE CITY MANAGER

NO. LTC # 250-2013

LETTER TO COMMISSION

TO: Mayor Matti Herrera Bower and Members of the City Commission

FROM: Jimmy L. Morales, City Manager

DATE: July 19, 2013

SUBJECT: Flamingo Park Football Field/Track Renovation Project

The purpose of this Letter to Commission (LTC) is to inform the Commission that pursuant to their directive at the April 17, 2013 City Commission meeting to negotiate the best price to add a CoolPlay cooling system to the currently specified artificial turf for the Flamingo Park Football Field and Track Renovation Project (Project), CIP has negotiated and is including the CoolPlay System in the project scope.

Background

During the Commission meeting of April 17, 2013, discussion to approve the construction contract for this Project, the Commission conveyed the City's Sustainability Committee concerns regarding the temperature of the proposed artificial turf installation. Members of that Committee asked that the Commission direct staff to look into the application of a product that would keep the artificial turf cooler during play. Because of the time sensitivity of completing this project in time for football season, the Commission approved the construction contract with CSR Heavy Construction, Inc. (Contractor). The motion included a directive to the Office of Capital Improvement Projects (CIP) and Procurement Department staff to negotiate the best price for the addition of CoolPlay system to the artificial turf. The Commission stated that they were satisfied to hear that the CoolPlay product is offered by the same company providing the artificial turf (Field Turf) and that the inclusion of the CoolPlay system would be an approximate additional cost of $30,000 to the overall cost of the Flamingo Park Football Field Project. The Contractor provided a cost proposal for adding CoolPlay to the scope of work in the amount of $33,293.70, which has been reviewed and recommended by the engineer of record.

The CoolPlay system consists of three (3) layer field turfs, sand and rubber infill and replaces the top layer with granulated cork, which the manufacturer claims reduces the temperature by 35 degrees Fahrenheit (see attached brochure). The manufacturer claims that the system performs well after heavy rainfall and that the Parks and Recreation Department can maintain the CoolPlay system's consistency and performance with bi-weekly brushing.

The main consideration for using the CoolPlay system is the comfort and safety of the football players, who will be the primary stakeholders of Memorial Field. This field will also be used for other games and other sports, such as soccer.

JMT/DM/MR/JV

Attachments:
Field Turf CoolPlay Product Information

FieldTurf®

CoolPlay

High Performance. Low Temperature.

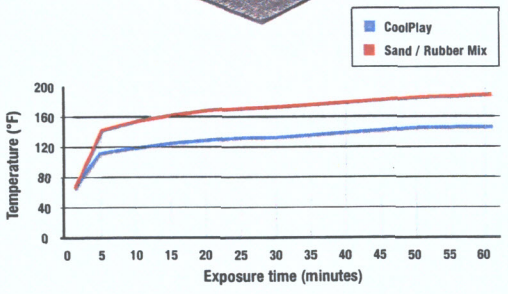
Laboratory tested to be

35°F cooler

than traditional sand/rubber turf systems.

Chilling Performance

CoolPlay is cool. It's FieldTurf's exclusive cork top dressing that performs just like the very best FieldTurf Elite system, found in the world's most famous stadiums. The CoolPlay system delivers the same behavior and overall stability as FieldTurf's patented layered system. CoolPlay takes nothing away from performance ...except the heat!



COOLPLAY Q&A

1. **How does the CoolPlay system work?**

The recipe for the CoolPlay system is simple. We took our patented, three-layer, sand and rubber infill system - which has proven to offer ideal athletic performance and safety in thousands of fields around the world - and replaced only the very top layer with high quality, granulated cork. The cork is what delivers the heat benefit – 35 degrees Fahrenheit less than traditional sand/rubber systems in comparative third-party lab testing. The high performance of the CoolPlay system comes from the many layers of sand and cryogenic rubber combined with the granulated cork that forms the system's infill.

In terms of performance of the actual top layer of cork granule – the cells in each cork granule function like microscopic air cushions, so they have excellent compression ability and resistance to compaction – which helps contribute to proper Gmax and Shock Absorption. The CoolPlay system delivers the same behavior and overall stability as FieldTurf's patented layered system and takes nothing away from performance ...except the heat!

2. **How did FieldTurf come to learn that a top layer of cork infill could work for sports fields?**

FieldTurf started out testing all known products and components that have been touted as heat reducers for infilled turf fields. Cork was the best of both worlds – a material proven to absorb less heat and a shock absorbent granule. The CoolPlay system was the only combination that reduced heat while still meeting all of FieldTurf's requirements for creating a high performance surface; and also the requirements of sports federations at the highest levels.

FieldTurf did not just rely on what was known – but rather, spent an entire year having the CoolPlay system tested for heat reduction and athletic performance, both in the short-term and in the long-term, at the FieldTurf Innovation & Performance Center, by third-party industry leaders in turf grass testing such as Penn State's Center for Sports Surface Research and Labosport, the industry testing firm that has certified more fields to proper performance standards than any other test institute. The results from all three test institutes confirmed that the CoolPlay system is for real.

The research and validation did not stop there. FieldTurf R&D spent months visiting fields and talking to clients that have owned and maintained cork infilled fields for years. The feedback was positive and the results showed that properly weighted and sized cork infill is very durable and also shock absorbent.

The main constituent of this cork is a substance called 'Suberin' - a waxy substance found in higher plants. It is a highly hydrophobic and a somewhat 'rubbery' material. Its main function is to prevent water from penetrating the tissue. Cork's unique closed cell structure filled with Suberin makes it a resilient moisture proof infill with an excellent shock absorbing capacity that delivers significant heat reduction. Suberin is anti-microbial, anti-allergenic and will repel pests, mold and prevent cork from rotting. Studies have shown that Suberin also gives cork fire resistant properties. Cork also won't release any toxic gases when burnt.

3. **Does your granulated cork float away when it rains?**

FieldTurf has conducted extensive wind and flotation testing on the CoolPlay system and found that it reacts quite similarly to crumb rubber. In simulated storm event testing conducted by Labosport, only a

marginal difference - 5.4% of the cork and 4.6% of the crumb rubber - was washed away. FieldTurf has also studied the behavior of granulated cork infill on new and old fields and concluded that the behavior is similar to crumb rubber. The key with the CoolPlay system is that the top layer of cork will be installed in FieldTurf Elite-level systems that feature our patented drainage channels for fast and effective turf drainage - which is critical for any/all infilled turfs.

4. How does the cork behave in windy conditions?

Aggressive wind testing was done comparing a top layer of SBR rubber with a top layer of granulated cork – localized movement of both infills were observed. The degree of movement on the cork infill was not considered excessive. Wind is of little to no concern to the CoolPlay infill system.

5. What is the overall movement of the cork granule like compared to other infills?

The behavior of the top layer of cork when it comes to wind, water, and "splash" is similar to crumb rubber. FieldTurf's specially sized cork granules were developed as some of the highest density cork material, in order to limit movement of the granules. Third-party comparative testing confirms the similarities in performance between the two top layers of infill.

6. Is there any extra maintenance with the installation of CoolPlay?

Regular adherence to FieldTurf's maintenance guidelines will ensure that the turf fibers and infill materials as part of the field are well taken care of. FieldTurf recommends brushing CoolPlay systems every 2 weeks and after every heavy rainfall. Studies and observations on existing cork fields have shown that cork doesn't move laterally as much as other infill materials during heavy rainfalls meaning that regular brushing will help redistribute any infill that may have been displaced.

7. Will this same granulated cork be available in years to come?

The cork used in FieldTurf's CoolPlay systems comes from one of, if not the largest cork supplier in the world. FieldTurf has access to millions of pounds every year. For 2013, there is a reserve of 50-60 fields with this cork material. In coming years, production of these granules will be based on the needs of our clients.

8. What does an on-field experience tell us?

FieldTurf's CoolPlay project team visited numerous cork and other organic fields to see what the actual "FEEL" difference is and to see if results from lab testing were justified – and they are. There is a noticeable difference. FieldTurf encourages all interested clients to get out and walk on a CoolPlay field to experience the heat reduction. Don't just rely on the laboratory test results – experience the difference.

9. Who is playing on CoolPlay and what do they think of it?

Our very first CoolPlay client was the University of Maryland. They installed CoolPlay before the most recent football season and they enjoy playing on it. The field was also used by Lacrosse and other teams during the school year. We've monitored the field and we've been very pleased with the results. The list of CoolPlay references is growing rapidly.

Here is what some of the Maryland staff was saying about CoolPlay:

"The new playing surface at Capital One Field at Byrd Stadium will improve student-athlete safety through innovative FieldTurf technology, help us with recruiting and the overall brand enhancement of our athletics program"

- Kevin Anderson - Director of Athletics

"This is an exciting time for our program. The addition of this new field will excite our entire student body and will be invaluable when it comes to recruiting in the future."

- Randy Edsall - Head Football Coach

"Having a field that is safer for our student athletes and plays so much cooler is very important. The fact that it will look terrific and be a great asset to Coach Edsall and I when recruiting makes it that much better."

- John Tillman - Head Men's Lacrosse Coach

10. What's the upcharge for CoolPlay?

The added cost to the project to install CoolPlay is $0.30/square foot. An average field is 80,000 square feet. That translates to $24,000 extra for significant heat reduction benefits. Just think, a proper irrigation system can cost $75,000+ and provides temporary benefits. For three times less the cost, you can have FieldTurf CoolPlay installed.